

Clean Set of Claims

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1. A voice messaging system with speakerphone capability, comprising:
- a microphone signal;
 - a gain module;
 - a message playback signal relating to a pre-recorded voice message;
 - a summer in said transmit path; and
 - a record module for recording a voice of a far end user and said microphone signal;
- wherein said message playback signal is combined with said microphone signal for transmission over a telephone line such that said far end user will simultaneously hear said microphone signal and said message playback signal.
2. The voice messaging system with speakerphone capability according to claim 1, further comprising:
- a message gain module between said message playback signal and said summer.
3. The voice messaging system with speakerphone capability according to claim 2, wherein said message gain module comprises:
- an automatic gain control portion; and
 - a fixed gain portion.
4. The voice messaging system with speakerphone capability according to claim 1, wherein said gain module comprises:
- a automatic gain control portion; and
 - a fixed gain control portion.

5. The voice messaging system with speakerphone capability according to claim 1, further comprising:

a switched loss echo suppression module in said transmit path after said gain module.

6. The voice messaging system with speakerphone capability according to claim 5, wherein:

said message playback signal is combined with said microphone signal at a point in said transmit path after said switched loss echo suppression module.

7. The voice messaging system with speakerphone capability according to claim 6, further comprising:

a digital to analog converter in said transmit path at a point after said switched loss echo suppression module.

8. The voice messaging system with speakerphone capability according to claim 1, further comprising:

a transmit voice activity detector in communication with said transmit path, said transmit voice activity detector indicating a transmit condition of said speakerphone.

9. The voice messaging system with speakerphone capability according to claim 1, wherein:

said voice messaging system is a telephone answering device.

10. A method of simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

establishing a telephone call;

initiating a transmit function of a speakerphone generating a microphone signal;

playing back a voice message pre-recorded on said speakerphone generating a playback message signal;

combining said microphone signal with said playback message signal;

transmitting said combined microphone signal and playback signal to a far end party over a telephone line; and

recording said microphone signal and a voice of a far end user.

11. The method of simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 10, further comprising:

adjusting a gain of said microphone signal.

12. The method of simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 11, further comprising:

adjusting a gain of said playback message signal.

13. The method of simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 11, wherein:

said adjusting similarly adjusts a gain of both said microphone signal and said playback message signal.

14. The method of simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 11, wherein:

said combining occurs at a point in a transmit path after a gain of said microphone signal is adjusted.

15. Apparatus for simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone, comprising:

means for establishing a telephone call;

means for initiating a transmit function of a speakerphone generating a microphone signal;

means for playing back a voice message pre-recorded on said speakerphone generating a playback message signal;

means for combining said microphone signal with said playback message signal;

means for transmitting said combined microphone signal and playback signal to a far end party over a telephone line;

means for recording said microphone signal and a voice of a far end user.

16. The apparatus for simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 15, further comprising:

means for adjusting a gain of said microphone signal.

17. The apparatus for simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 15, further comprising:

means for adjusting a gain of said playback message signal.

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18. The apparatus for simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 15, wherein:

said means for adjusting similarly adjusts a gain of both said microphone signal and said playback message signal.

19. The apparatus for simultaneously recording and transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone according to claim 16, wherein:

said means for combining combines said microphone signal with said playback message signal at a point in a transmit path after said means for adjusting said microphone signal.